

What is claimed is:

1. A delivery catheter for a gastric reduction system, the delivery catheter comprising:

an elongate torqueable tube;
a needle translatably disposed within the torqueable tube; and
an anchor translatably disposed within the needle.

2. The delivery catheter of claim 1, wherein the torqueable tube is formed of a braided stainless steel wire.

3. The delivery catheter of claim 1, wherein the torqueable tube contains a plurality of laser cut slots disposed substantially perpendicular to a longitudinal axis of the torqueable tube.

4. The delivery catheter of claim 3, wherein the slots are formed in a sinusoidal pattern.

5. The delivery catheter of claim 3, wherein the slot density is increased near a distal end of the torqueable tube.

6. The delivery catheter of claim 1, further comprising a coil screw to facilitate anchor delivery.

7. The delivery catheter of claim 6, wherein the coil screw is fixedly attached to a distal end of the torqueable tube.

8. The delivery catheter of claim 6, wherein the coil screw include a sharpened distal tip to facilitate tissue penetration.

9. The delivery catheter of claim 6, wherein the coil screw comprises a plurality of coils that form a central opening for the passage of the needle.

10. The delivery catheter of claim 6, wherein the coil screw and needle are substantially coaxial.

11. The delivery catheter of claim 6, wherein the coil screw is translatably disposed within a delivery catheter lumen.

12. The delivery catheter of claim 1, further comprising a push rod translatably disposed within the needle and adapted to push the anchor out of a distal end of the needle.

13. Apparatus for gastric reduction, comprising:

an elongate torqueable tube;

a needle translatably disposed within the torqueable tube;

an anchor translatably disposed within the needle; and

a stabilization device for holding a distal tip of the torqueable tube against a tissue wall.

14. The apparatus of claim 13, wherein the stabilization device holds the distal tip of the torqueable tube against the tissue wall while the needle penetrates the tissue wall and delivers the anchor.

15. The apparatus of claim 13, wherein the stabilization device comprises a coil screw fixedly attached to the distal end of the torqueable tube.

16. The apparatus of claim 15, wherein the coil screw include a sharpened distal tip to facilitate tissue penetration.

17. The apparatus of claim 15, wherein the coil screw comprises a plurality of coils that form a central opening for the passage of the needle.

18. The apparatus of claim 15, wherein the coil screw and needle are substantial coaxial.

19. The apparatus of claim 13, wherein the stabilization device comprises a coil screw translatably disposed within a delivery catheter lumen.

20. The apparatus of claim 13, wherein the stabilization device comprises a shaft coupled to a plurality of resilient fingers and disposed within a delivery catheter lumen.

21. The apparatus of claim 20, wherein the resilient fingers are adapted to automatically expand into a deployed configuration upon exiting the delivery catheter.

22. The apparatus of claim 13, wherein the stabilization device comprises a plurality of resilient wires disposed within lumens spaced apart around the periphery of the torqueable tube.

23. The apparatus of claim 22, wherein the resilient wires are curved such that they extend radially outward from the distal tip of the torqueable tube when in a deployed configuration.

24. The apparatus of claim 17, wherein the needle is curved.

25. The apparatus of claim 24, wherein initial deployment of the curved needle through the coil screw causes the needle to penetrate the tissue wall at a first location.

26. The apparatus of claim 25, wherein further deployment of the curved needle through the coil screw causes the needle to penetrate the tissue wall at a second location.

27. The apparatus of claim 24, wherein initial deployment of the curved needle through the coil screw causes the needle to penetrate the tissue wall such that a distal tip of the needle moves from a first side of the tissue wall to a second side of the tissue wall.

28. The apparatus of claim 27, wherein further deployment of the curved needle through the coil screw causes the needle to penetrate the tissue wall for a second time such that the distal tip of the needle moves from a second side of the tissue wall back to the first side of the tissue wall.

29. The apparatus of claim 28, wherein the anchor is ejected through the curved needle after the

distal tip of the needle penetrates the tissue wall for the second time.

30. A delivery catheter for a gastric reduction system, the delivery catheter comprising:
an elongate torqueable tube;
an obturator comprising an elongate shaft translatably disposed within the torqueable tube; and
an anchor disposed in a reduced delivery profile about the obturator shaft.

31. The delivery catheter of claim 30, wherein the obturator includes a sharpened distal tip to facilitate the penetration of tissue wall.

32. The delivery catheter of claim 31, wherein the sharpened distal tip is adapted to be extended beyond the a distal end of the torqueable tube.

33. The delivery catheter of claim 31, wherein a push rod is used to deliver the anchor once the obturator penetrates the tissue wall.

34. The delivery catheter of claim 33, wherein the obturator is retracted into the torqueable tube once the anchor is delivered.

35. The delivery catheter of claim 30, further comprising a second anchor disposed about the obturator.

36. The delivery catheter of claim 30, further comprising a blunt, spring-loaded tip extending distally from a sharpened distal tip of the obturator.

37. The delivery catheter of claim 36, wherein the blunt, spring-loaded tip is disposed within a cavity located within the sharpened distal tip of the obturator.

38. The delivery catheter of claim 37, wherein the blunt, spring-loaded tip is adapted to be depressed within the cavity when the obturator is pressed against a tissue wall.

39. The delivery catheter of claim 38, wherein depressing the blunt, spring-loaded tip within the cavity exposes the tissue wall to the sharpened distal tip of the obturator.

40. Apparatus for gastric reduction, comprising:

an elongate torqueable tube; and

an ejection needle translatably disposed within the torqueable tube, the ejection needle comprising:

a first lumen housing a plurality of anchors;

a second lumen; and

a spring-loaded shifting element for shifting the anchors from the first lumen to the second lumen.

42. The apparatus of claim 41, further comprising an actuator cable, wherein pulling the actuator cable in a proximal direction causes an anchor to be shifted from the first lumen to the second lumen

43. The apparatus of claim 42, further comprising a push rod for ejecting the anchor from the second lumen.

44. The apparatus of claim 40, wherein the anchors within the first lumen are biased in a distal direction by a compression spring.

45. The apparatus of claim 40, wherein the ejection needle includes a non-coring distal tip.